

Application No. 10/608,995
Filed: June 27, 2003
TC Art Unit: 3679
Confirmation No.: 6412

THE CLAIMS

1. (Currently Amended) An assembly system for a pipe coupling, said system comprising:

a first sheet metal pipe element and a second pipe element, the pipe elements each having an outwardly directed circumferential bead or flange,

a circumferential clamping device to be applied on the outside of the ends of said pipe elements and to be tightened around the same when said two pipe elements are placed end-to-end, and

a coupling device disposed between an end face of said first pipe element and an opposing end face of said second pipe element when said end faces of said first and second pipe elements are axially aligned and beneath said circumferential clamping device, and configured to align or hold said two pipe elements during the assembly, said coupling device having at least one coupling means extending outwardly in an axial direction towards said pipe elements, and said coupling means configured to engage said beads or flanges of said two pipe elements on the outside of the pipe elements.

2.-3. (Cancelled)

4. (Previously Presented) The system as claimed in claim 1, wherein each outwardly directed circumferential bead or flange is disposed at the end of the pipe element.

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5. (Previously Presented) The system as claimed in claim 4, wherein said coupling device is a ring comprising a first and a second coupling means, where said first coupling means is adapted to outwardly engage said bead or flange of said first pipe element and said second coupling means is adapted to outwardly engage or hold said bead or flange of said second pipe element.

6. (Original) The system as claimed in claim 5, wherein said coupling means has a groove adapted to engage said beads or flanges of said pipe elements.

7. (Original) The system as claimed in claim 5, wherein said coupling means is adapted to engage a part of said pipe elements or a part of said beads or flanges of said pipe elements.

8. (Currently Amended) The system as claimed in claim 5, wherein said first coupling means extends along part of the circumference of said ring so as to engage said first pipe element or said bead or flange of said first pipe element, and said second coupling means extends along part of the circumference of said ring so as to engage ~~and/or~~ or hold said second pipe element or said bead or flange of said second pipe element.

9. (Previously Presented) The system as claimed in claim 5, wherein said first coupling means is adapted to outwardly engage an upper part of said first pipe element or said bead or flange of said first pipe element and said second coupling means is adapted to outwardly engage or hold a lower part of said second pipe element or said bead or flange of said second pipe element.

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10. (Original) The system as claimed in claim 5, wherein said coupling ring comprises a plurality of said first coupling means and a plurality of said second coupling means, said first and second coupling means being spaced apart along the circumference of said coupling ring.

11. (Original) The system as claimed in claim 5, wherein said coupling means comprises friction enhancing means on the surface facing said pipe elements or said bead or flange of said pipe elements.

12. (Original) The system as claimed in claim 1, wherein the coupling device comprises sealing means.

13. (Original) The system as claimed in claim 1, wherein said coupling device is made of plastic material, rubber material, metal or reinforced fibre material.

14. (Original) The system as claimed in claim 4, wherein said clamping device is tightened around said ends of said pipe elements or said beads or flanges of said pipe elements and said coupling device by a locking mechanism.

15. (Previously Presented) The system as claimed in claim 1, wherein the coupling device is an integrated part of said end of said first pipe element.

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16. (Currently Amended) A method for coupling a first sheet metal pipe element and a second pipe element, the pipe elements each having an outwardly directed circumferential bead or flange, said method comprising

- applying a circumferential clamping device on the outside of said first pipe element in an untightened position;
- arranging a coupling device in engagement with said bead or flange of said first pipe element;
- bringing said bead or flange of said second pipe element into engagement with said coupling device with said coupling device disposed between an end face of said first pipe element and an opposing end face of said second pipe element, thus aligning or holding said two pipe elements during the assembly;
- applying said circumferential clamping device on the outside of said ends of said pipe elements; and
- tightening said circumferential clamping device around said ends of said pipe elements.

17. (Currently Amended) A method for coupling a first sheet metal pipe element and a second pipe element, the pipe elements each having an outwardly directed circumferential bead or flange, use being made of an assembly system comprising a circumferential clamping device, which is applied on the outside of the ends of said pipe elements and tightened around the same when said two pipe elements are placed end-to-end, wherein a coupling device is arranged between an end face of said first pipe element and an opposing end face of said second pipe

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element when said end faces of said first and second pipe elements are axially aligned and in engagement with the bead or flange of the two pipe elements on the outside of the two pipe elements, to align or hold said two pipe elements during the assembly, and tightening the clamping device to couple the two pipe elements together.

18. (Previously Presented) Use of an assembly system as claimed in claim 1 for coupling a first pipe element and a second pipe element.

19. (Previously Presented) The use of the assembly system as claimed in claim 18, wherein each outwardly directed circumferential bead or flange is disposed at the end of the pipe element.

20. (Currently Amended) A coupling device for an assembly system for a pipe coupling including a first sheet metal pipe element and a second pipe element, the pipe elements each having an outwardly directed circumferential bead or flange, said coupling device configured to be disposed between an end face of said first pipe element and an opposing end face of said second pipe element when said end faces of said first and second pipe elements are axially aligned, said coupling device having at least one coupling means extending outwardly in the axial direction, said coupling means configured to engage said beads or flanges of said two pipe elements on their outside.

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21. (Previously Presented) The coupling device as claimed in claim 20, wherein said coupling device is a ring comprising a first and a second coupling means, where said first coupling means is adapted to outwardly engage said first pipe element and said second coupling means is adapted to outwardly engage or hold said second pipe element.

22. (Previously Presented) The coupling device as claimed in claim 21, wherein said first coupling means is adapted to outwardly engage an upper part of said first pipe element and said second coupling means is adapted to outwardly engage or hold a lower part of said second pipe element.

23. (Original) The coupling device as claimed in claim 21, comprising two semi-circular coupling means.

24. - 25. (Cancelled)

26. (Currently Amended) An assembly system for a pipe coupling, said system comprising:

a first sheet metal pipe element, a second pipe element, and a circumferential clamping device to be applied on the outside of the ends of the pipe elements and to be tightened around the pipe elements when the two pipe elements are placed end-to-end;

a coupling device to be arranged between an end face of the first pipe element and an opposing end face of the second pipe element when the end faces of the first and second pipe elements are axially aligned and beneath the circumferential clamping device, wherein the coupling device has at least one coupling

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means extending outwardly in an axial direction towards the pipe elements and wherein the second pipe element has an outwardly directed circumferential bead or flange;

wherein the coupling device is an integrated part of said end of said first pipe element and the coupling means is arranged to engage the bead or flange of the second pipe element on its outside so as to align or hold the two pipe elements during the assembly.

27. - 38. (Cancelled)

39. (Previously Presented) Use of an assembly system as claimed in claim 4 for coupling a first pipe element and a second pipe element.

40. (Previously Presented) Use of an assembly system as claimed in claim 5 for coupling a first pipe element and a second pipe element.

41. (Previously Presented) Use of an assembly system as claimed in claim 6 for coupling a first pipe element and a second pipe element.

42. (Previously Presented) Use of an assembly system as claimed in claim 7 for coupling a first pipe element and a second pipe element.

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43. (Previously Presented) Use of an assembly system as claimed in claim 8 for coupling a first pipe element and a second pipe element.

44. (Previously Presented) Use of an assembly system as claimed in claim 9 for coupling a first pipe element and a second pipe element.

45. (Previously Presented) Use of an assembly system as claimed in claim 10 for coupling a first pipe element and a second pipe element.

46. (Previously Presented) Use of an assembly system as claimed in claim 11 for coupling a first pipe element and a second pipe element.

47. (Previously Presented) Use of an assembly system as claimed in claim 12 for coupling a first pipe element and a second pipe element.

48. (Previously Presented) Use of an assembly system as claimed in claim 13 for coupling a first pipe element and a second pipe element.

49. (Previously Presented) Use of an assembly system as claimed in claim 14 for coupling a first pipe element and a second pipe element.

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50. (Previously Presented) Use of an assembly system as claimed in claim 15 for coupling a first pipe element and a second pipe element.

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